



# British Telecommunications Engineering

## INDEX

### VOLUME 8

(April 1989 – January 1990)

(Supplement articles are indicated by 'S' followed by the Part number of Volume 8, see p. 4.)

#### A

Access Network, Microwave Radio in the British Telecom	100
ACOTT, M., REDMILL, F. J., and KIMPTON, R. I. Quality—Experience with Department Purpose Analysis	92
Aeronautical Telephone Service, Speech Codec for the Skyphone	83
Alarm Management—A New Approach, Prioritised Remote Exchange	109
ALLEN, P. A. The Development of High Reliability Modular Cooling Systems in British Telecom	S4
ALTEHAGE, G. Open Network Provision: Concepts and Technical Realisation Proposals for the Network of the Deutsche Bundespost Telekom	S2
Architecture, AXE10:	156
Associate Section	51, 114
Assuring Quality in Software—Practical Experiences in Attaining ISO 9001	244
AXE10: Architecture	156
AXE10 in BTUK, System Y—The Background to	232

#### B

BANCROFT, J., and SILVERSON, R. B. AXE10: Architecture	156
BANERJEE, U., RABINDRAKUMAR, K., and SZCZECZ, B. J. London Code Change	134
BATY, R. M., and RICHARDS, D. G. Frame Management Systems Within The Local Network	18
BEALBY, A. G. Network Administration Implementation Programme	212
BOLINGBROKE, P. J., BOYD, I., SOUTHCOTT, C. B., and CROWE, D. P. Speech Codec for the Skyphone Aeronautical Telephone Service	83
Book Reviews	54, 119, 190, 272
BOWEN, J. H. COSMIC IIA: A Modular Main Distribution Frame System	29
BOWEN, J. H. Main Distribution Frames	6
BOYD, I., SOUTHCOTT, C. B., CROWE, D. P., and BOLINGBROKE, P. J. Speech Codec for the Skyphone Aeronautical Telephone Service	83
British Telecom International—Broadcast and Visual Services	208

#### British Telecom Press Notices

British Telecom M6000-Series Computers	55
British Telecom Marine Orders New-Generation Cable Ship	268
British Telecom Provides World Standard for Data Compression	116
British Telecom Research Achieves First Complete Optical Switching	60
British Telecom Takes the Lead in Vocational Training	117
British Telecom Trial of TV over Optical Fibre at Bishop's Stortford	56
Centre for Excellence in Technical Training	117
CLIP—A Standard Control Language for Intelligent Peripherals	58
Customs Awards UK Facilities Management Contract	118
Launch of the Digital Communications Era	269
Link Awards Facilities Management Contract	118
Major Unleaded Initiative for British Telecom	189
Message Handling Systems Testing for European Open Systems	190
New Codes for London	116
New Exchange Paves the Way for ISDN to Europe Next Year	118
New International ISDN Services in the Summer	59
New Optical-Fibre Achievement for British Telecom—25 000 Simultaneous Telephone Calls on One Fibre	58
Primex Private Voice Network	59
Repair Service Gets Seal of Approval	57
Singapore Telecom Awards BT £13M Contract for Customer Service System	269
Standard-C Earth Terminal	56
STC Wins British Telecom's First Network Quality Award	59
Telecom Boost for Ulster Economy	57
Tymnet Purchase Completed	268
Video Communications for the Deaf	189
British Telecom—The Multinational Company	
Keynote Address to the Institution of British Telecommunications Engineers	196
Broadcast and Visual Services, British Telecom International—	208
BT Telecommunications Network, The	S1



BUTCHER, I. C., POINTEER, A. P., PATEL, K. N., and JACKSON, G. S. Mondial DISC—British Telecom's Latest International Gateway . . . . .	216
---	-----

## C

Call Logging Device, Monolog—A Single-Line . . . . .	2
CARPENTIER, MICHEL Communications Europe . . . . .	44
CARRELLI, C. Open Network Provision: Concept in Europe . . . . .	S2
Centralised Exchange Management Using Gateway Products . . . . .	160
Centrex within BT Severnside District Service PBX, Development of . . . . .	263
CHIDLEY, J. A Market View of the Network . . . . .	200
City, Making Light Work in the . . . . .	37
CLOW, D. Rising Groundwater in Urban Areas—Implications for British Telecom . . . . .	176
CMA-755 SPC Telex Exchange . . . . .	11
Code Change, London . . . . .	134
Codec for the Skyphone Aeronautical Telephone Service, Speech . . . . .	83
Commercial Opportunities in Serving Major Customers . . . . .	172
Common Integrated Database—The Key to Improved Customer Service, A . . . . .	128
Communications Europe . . . . .	44
Competitive and Deregulated Environment, Provision of Telecommunication Service in a . . . . .	150
Computer Centres, Secure Power Supplies for British Telecom's Major . . . . .	S4
Cooling Systems in British Telecom, The Development of High Reliability Modular . . . . .	S4
COSMIC IIA: A Modular Main Distribution Frame System . . . . .	29
CROWE, D. P., BOLINGBROKE, P. J., BOYD, I., and SOUTHCOTT, C. B. Speech Codec for the Skyphone Aeronautical Telephone Service . . . . .	83
Crucial Role of Project Management, The Relocation of The Daily Telegraph Headquarters to Docklands . . . . .	34
Customer Service, A Common Integrated Database—The Key to Improved . . . . .	128
Customers, Commercial Opportunities in Serving Major . . . . .	172

## D

Daily Telegraph Headquarters to Docklands, Relocation of The . . . . .	34
The Crucial Role of Project Management . . . . .	34
Database—The Key to Improved Customer Service, A Common Integrated . . . . .	128
Department Purpose Analysis, Quality—Experience with . . . . .	92
Deregulated Environment, Provision of Telecommunication Service in a Competitive and . . . . .	150
Derived Services Intelligent Network, The Digital . . . . .	144
Deutsche Bundespost Telekom, Open Network Provision: Concepts and Technical Realisation Proposals for the Network of the . . . . .	S2
Development of Centrex within BT Severnside District Service PBX . . . . .	263
Development of High Reliability Modular Cooling Systems in British Telecom, The . . . . .	S4
DEY, D. British Telecom—The Multinational Company Keynote Address to the Institution of British Telecommunications Engineers . . . . .	196
DIBBEN, A. DIDUMS—A Solution to Exhausted MDFs . . . . .	131
DIDUMS—A Solution to Exhausted MDFs . . . . .	131
Digital Derived Services Intelligent Network, The . . . . .	144
DISC—British Telecom's Latest International Gateway, Mondial . . . . .	216
Docklands, Relocation of The Daily Telegraph Headquarters to . . . . .	34
The Crucial Role of Project Management . . . . .	34
DONDELINGER, CHARLES FITCE in Europe's Telecommunications Development . . . . .	48

## E

Electromagnetic Compatibility and the 1992 Single European Market . . . . .	66
Electromagnetic Compatibility—Its Impact on Telecommunications . . . . .	70
Electronic Mail, X.400 . . . . .	164

ELLIOTT, J. L. C. Neighbourhood Engineers . . . . .	258
Equipment Practice, Type 88—A New Telecommunications . . . . .	74
Europe, Communications . . . . .	44
Europe, Open Network Provision: Concept in . . . . .	S2
Europe-Wide Integrated Telecommunications Service . . . . .	62
Europe's Telecommunications Development, FITCE in . . . . .	48
European Market, Electromagnetic Compatibility and the 1992 Single . . . . .	66
European Telecommunications Standards Institute . . . . .	40
European Telecommunications Standards Institute Technical Assembly, July 1989, Nice . . . . .	121
Exchange Alarm Management—A New Approach, Prioritised Remote . . . . .	109
Exchange, CMA-755 SPC Telex . . . . .	11
Exchange Management Using Gateway Products, Centralised . . . . .	160
Exchanges, A New Dual Reserve Power System for Small Telephone . . . . .	S4

## F

Federation of the Telecommunications Engineers of the European Community, The Portugal/Glasgow Seminars . . . . .	182
Fibre to the Home, Plans for a British Trial of . . . . .	78
FITCE in Europe's Telecommunications Development . . . . .	48
FITCE Looks into the 1990s . . . . .	S2
Frame Management Systems Within The Local Network . . . . .	18
Frame System, COSMIC IIA: A Modular Main Distribution . . . . .	29
Frames, Main Distribution . . . . .	6
FULLER, R. Making Light Work in the City . . . . .	37

## G

Gateway, Mondial DISC—British Telecom's Latest International . . . . .	216
Gateway Products, Centralised Exchange Management Using . . . . .	160
Groundwater in Urban Areas—Implications for British Telecom, Rising . . . . .	176

## H

HAMELBERG, P. J. C. FITCE Looks into the 1990s . . . . .	S2
HARRISON, F. G. Microwave Radio in the British Telecom Access Network . . . . .	100
HIGGINS, R. A. The Crucial Role of Project Management Relocation of The Daily Telegraph Headquarters to Docklands . . . . .	34
Highlands and Islands Initiative, The . . . . .	107
Home, Plans for a British Trial of Fibre to the . . . . .	78
HOWARD, R. H. Secure Power Supplies for British Telecom's Major Computer Centres . . . . .	S4

## I

IBTE/FITCE Seminar: Open Network Provision . . . . .	110
IBTE/FITCE Seminar: Open Network Provision Round Table Discussion . . . . .	S2
Institution of British Telecommunications Engineers . . . . .	52, 112, 184, 264
Institution of British Telecommunications Engineers Associate Section . . . . .	51, 114
Institution of British Telecommunications Engineers, Keynote Address to the . . . . .	196
British Telecom—The Multinational Company . . . . .	144
Intelligent Network, The Digital Derived Services . . . . .	208
International—Broadcast and Visual Services, British Telecom International Gateway, Mondial DISC—British Telecom's Latest . . . . .	216
ISO 9001, Assuring Quality in Software—Practical Experiences in Attaining . . . . .	244

## J

JACKSON, G. S., BUTCHER, I. C., POINTEER, A. P., and PATEL, K. N. Mondial DISC—British Telecom's Latest International Gateway . . . . .	216
---	-----



JELLY, C. Type 88—A New Telecommunications Equipment Practice	74
JONES, B., and SLATER, A. J. Electromagnetic Compatibility—Its Impact on Telecommunications	70
JUPP, M. J. Monolog—A Single-Line Call Logging Device	2

## K

Keynote Address to the Institution of British Telecommunications Engineers	
British Telecom—The Multinational Company	196
KIMPTON, R. I., ACOTT, M., and REDMILL, F. J. Quality—Experience with Department Purpose Analysis	92
KIRK, M. J. Open Operating Systems	234
KITE, P. CMA-755 SPC Telex Exchange	11

## L

Light Work in the City, Making	37
Local Network, Frame Management Systems Within The	18
London Code Change	134

## M

MCLEOD, N. A. C. Numbering in Telecommunications	225
Mail, X.400 Electronic	164
Main Distribution Frame System, COSMIC IIA: A Modular	29
Main Distribution Frames	6
Making Light Work in the City	37
Management Systems Within The Local Network, Frame	18
Management Using Gateway Products, Centralised Exchange	160
Market, Electromagnetic Compatibility and the 1992 Single European	66
Market View of the Network, A	200
MARTIN-ROYLE, R. D. Electromagnetic Compatibility and the 1992 Single European Market	66
Martlesham Medal for Optical-Fibre Innovator	42
MDFs, DIDUMS—A Solution to Exhausted	131
Microwave Radio in the British Telecom Access Network	100
Mondial DISC—British Telecom's Latest International Gateway	216
Monolog—A Single-Line Call Logging Device	2
MORGAN, K. Commercial Opportunities in Serving Major Customers	172

## N

Neighbourhood Engineers	258
Network, A Market View of the	200
Network Administration Implementation Programme	212
Network, Frame Management Systems Within The Local	18
Network, Microwave Radio in the British Telecom Access	100
Network Provision: Concepts and Technical Realisation	
Proposals for the Network of the Deutsche Bundespost Telekom, Open	S2
Network, The BT Telecommunications	S1
Network, The Digital Derived Services Intelligent	144
Networks, Technical Aspects of Open	S2
New Dual Reserve Power System for Small Telephone Exchanges, A	S4
NEILSON, G. Centralised Exchange Management Using Gateway Products	160
1992 Single European Market, Electromagnetic Compatibility and the	66
NORRIS, M. T., RIGBY, P. J., and STODDART, A. G. Assuring Quality in Software—Practical Experiences in Attaining ISO 9001	244
Notes and Comments	61, 122, 193, 273
Numbering in Telecommunications	225

## O

O'CONNOR, J. A. A New Dual Reserve Power System for Small Telephone Exchanges	S4
OLIVER, G. P. Technical Aspects of Open Networks	S2
Open Network Provision: Concept in Europe	S2
Open Network Provision: Concepts and Technical Realisation Proposals for the Network of the Deutsche Bundespost Telekom	S2

Open Network Provision, IBTE/FITCE Seminar:	110
Open Network Provision, IBTE/FITCE Seminar: Round Table Discussion	S2
Open Networks, Technical Aspects of	S2
Open Operating Systems	234
Optical-Fibre Innovator, Martlesham Medal for	42

## P

PATEL, K. N., JACKSON, G. S., BUTCHER, I. C., and POINTEER, A. P. Mondial DISC—British Telecom's Latest International Gateway	216
Phones on the Move	26
Plans for a British Trial of Fibre to the Home	78
POINTEER, A. P., PATEL, K. N., JACKSON, G. S., and BUTCHER, I. C. Mondial DISC—British Telecom's Latest International Gateway	216
POWELL, S. Development of Centrex within BT Severnside District Service PBX	263
Power Supplies for British Telecom's Major Computer Centres, Secure	S4
Power System for Small Telephone Exchanges, A New Dual Reserve	S4
Practice, Type 88—A New Telecommunications Equipment	74
Prioritised Remote Exchange Alarm Management—A New Approach	109
Product News	
British Telecom Announces O. S. C. A. and T-NET Enhancements	270
British Telecom Expands Range of Desktop Personal Computers	271
British Telecom Launches New Range of TDM Mega-Stream Multiplexers	191
British Telecom Launches the New Marquis II	120
British Telecom's New Dealerboard Voice Switch	271
Combined BTeX ACD Telephone System	120
New Aid for Visually Handicapped	191
New Fax Machines from British Telecom	192
New Paggers for Business	270
New Pentara+Plus Telephone System	121
Product Quality, Validation Testing—Improving	250
Project Management, The Crucial Role of	
Relocation of The Daily Telegraph Headquarters to Docklands	34
Provision of Telecommunication Service in a Competitive and Deregulated Environment	150

## Q

Quality—Experience with Department Purpose Analysis	92
Quality in Software—Practical Experiences in Attaining ISO 9001, Assuring	244
Quality, Validation Testing—Improving Product	250

## R

RABINDRAKUMAR, K., SZCZECZ, B. J., and BANERJEE, U. London Code Change	134
Radio in the British Telecom Access Network, Microwave	100
REDMILL, F. J., KIMPTON, R. I., and ACOTT, M. Quality—Experience with Department Purpose Analysis	92
Relocation of The Daily Telegraph Headquarters to Docklands	
The Crucial Role of Project Management	34
Reserve Power System for Small Telephone Exchanges, A New Dual	S4
RICHARDS, D. G., and BATY, R. M. Frame Management Systems Within The Local Network	18
RIGBY, P. J., STODDART, A. G., and NORRIS, M. T. Assuring Quality in Software—Practical Experiences in Attaining ISO 9001	244
Rising Groundwater in Urban Areas—Implications for British Telecom	176
Round Table Discussion	
IBTE/FITCE Seminar: Open Network Provision	S2
ROWBOTHAM, T. R. Plans for a British Trial of Fibre to the Home	78
RUNCIMAN, C. N. A Common Integrated Database—The Key to Improved Customer Service	128



## S

Secure Power Supplies for British Telecom's Major Computer Centres	S4
Seminar: Open Network Provision, IBTE/FITCE	110
SILVERSON, R. B., and BANCROFT, J. AXE10: Architecture	156
SILVERSON, R. B. System Y—The Background to AXE10 in BTUK	232
Skyphone Aeronautical Telephone Service, Speech Codec for the	83
SLATER, A. J., and JONES, B. Electromagnetic Compatibility—Its Impact on Telecommunications	70
Software—Practical Experiences in Attaining ISO 9001, Assuring Quality in	244
SOUTHCOTT, C. B., CROWE, D. P., BOLINGBROKE, P. J., and BOYD, I. Speech Codec for the Skyphone Aeronautical Telephone Service	83
SPC Telex Exchange, CMA-755	11
Speech Codec for the Skyphone Aeronautical Telephone Service	83
STODDART, A. G., NORRIS, M. T., and RIGBY, P. J. Assuring Quality in Software—Practical Experiences in Attaining ISO 9001	244
System Y—The Background to AXE10 in BTUK	232
SZCZECZ, B. J., BANERJEE, U., and RABINDRAKUMAR, K. London Code Change	134

## T

TAYLOR, M. British Telecom International—Broadcast and Visual Services	208
Technical Aspects of Open Networks	S2
Telecommunication Service in a Competitive and Deregulated Environment, Provision of	150
Telecommunications Development, FITCE in Europe's	48
Telecommunications, Electromagnetic Compatibility—Its Impact on	70

Telecommunications Equipment Practice, Type 88—A New	74
Telecommunications Network, The BT	S1
Telecommunications, Numbering in	225
Telephone Exchanges, A New Dual Reserve Power System for Small	S4
Telephone Service, Speech Codec for the Skyphone Aeronautical	83
Telex Exchange, CMA-755 SPC	11
Testing—Improving Product Quality, Validation	250
Trial of Fibre to the Home, Plans for a British	78
Type 88—A New Telecommunications Equipment Practice	74

## V

VALDAR, A. R. Provision of Telecommunication Service in a Competitive and Deregulated Environment	150
Validation Testing—Improving Product Quality	250
Visual Services, British Telecom International—Broadcast and	208

## W

WARD, KEITH The BT Telecommunications Network	S1
WEBSTER, S. The Digital Derived Services Intelligent Network	144
WHITING, P. J., and WILMOT, C. D. Validation Testing—Improving Product Quality	250
WILKINSON, C. F. X.400 Electronic Mail	164
WILMOT, C. D., and WHITING, P. J. Validation Testing—Improving Product Quality	250

## X

X.400 Electronic Mail	164
-----------------------	-----

## SUPPLEMENT

The BT Telecommunications Network	Apr. 1989
Open Network Provision—IBTE/FITCE Regional Seminar	Jul. 1989
FITCE Looks into the 1990s	
Open Network Provision: Concept in Europe	
Technical Aspects of Open Networks	
Open Network Provision: Concepts and Technical Realisation Proposals for the Network of the Deutsche Bundespost Telekom	
Round Table Discussion	
British Telecom Papers from INTELEC 1989—The Eleventh International Telecommunications Energy Conference	Jan. 1990
A New Dual Reserve Power System for Small Telephone Exchanges	
Secure Power Supplies for British Telecom's Major Computer Centres	
The Development of High Reliability Modular Cooling Systems in British Telecom	

## VOLUME 8

Part 1 (Apr. 1989)	pp. 1–64
Part 2 (Jul. 1989)	pp. 65–126
Part 3 (Oct. 1989)	pp. 127–194
Part 4 (Jan. 1990)	pp. 195–274